Claims

- 1. Method for the transmission of data via at least one subscriber's connection (TA) located in at least one communication network (OKN),
- 5 in which connection data (port-id) representing the at least one subscriber's connection (TA) is transmitted to the communication network (OKN, ASR) and in which the transmitted connection data (port-id) is used to authenticate the data to be transmitted via the at least one subscriber's connection (TA).
 - Method in accordance with claim 1, characterized in that,

the connection data (port-id) is designed as a port identification or PORT-ID and/or represents at least one subscriber connecting line (TAL) connected to the at least one subscriber's connection (TA).

- 3. Method in accordance with claim 1 or 2, characterized in that, the transmitted connection data (port-id) is stored in the
- 20 communication network (OKN, ASR).
 - 4. Method in accordance with one of the preceding claims, characterized in that,

the data to be transmitted is transmitted within the framework of a communication link (PPPoE) via the at least one

- 25 subscriber's connection (OKN), in which the connection data (port-id) is at least transmitted to the communication network (BKN, ASR) on the establishment of a communication link (PPPoE).
- Method in accordance with one of the preceding claims,
 characterized in that,

the communication network (BKN) is designed as a packetoriented or a cell-oriented communication network, and that the data and the connection data (port-id) are transmitted by means of the PPP protocol.

- 6. Method in accordance with claim 5, characterized in that, the packet-oriented or cell-oriented communication network (OKN) is at least partly designed in accordance with the Ethernet transmission method.
- 7. Method in accordance with claim 6, characterized in that, the data and the connection data (port-id) are transmitted via the at least one subscriber's connection (TA) in accordance with the PPPoE transmission method in accordance with RFC 2516.
- 8. Method in accordance with claim 7, characterized in that, the connection data (port-id) is inserted as the "Relay Session ID TAG" into the PPPoE Active Discovery (PADI) messages transmitted via the at least one subscriber's connection (TA) to the communication network (OKN, ASR).

9. Method in accordance with claim 7 or 8,

characterized in that,
the at least one subscriber's connection (TA) which is
25 allocated to a switching device (VE) located in a
communication network (OKN), in which through the switching
device (VE), the connection data (port-id) is inserted into
the PPPOE Active Discovery (PADI) messages and is forwarded to
an access network element (ASR) located in the at least one
30 communication network (OKN) and which is transmitted further
to the access network element controlling the at least one

communication network (OKN, IP).

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- 10. Method in accordance with claim 9, characterized in that,
- in the access network element (ASR), the "Relay Session ID

 TAG" identifies data in the transmitted PPPoE Active Discovery
 (PADI) messages, extracts the connection data (port-id) and
 the extracted connection data (port-id) is transmitted from
 the access network element (ASR) to an authentication network
 element (RADS) located in the communication network (OKN), in
 which the data to be transmitted is verified by the
- 10 which the data to be transmitted is verified by the authentication network element (RADS) by using the transmitted connection data (port-id).
 - 11. Method in accordance with one of the preceding claims, characterized in that,
- via the at least one subscriber's connection (TA), at least one subscriber is connected to the communication network (OKN), and that the verification of the authentication is carried out by using the transmitted connection data (port-id) and by using the

subscriber data representing the at least one subscriber.

- 12. Method in accordance with claim 11, characterized in that, the subscriber data includes at least one user name and at least one password.
- 25 13. Communication system for the transmission of data via at least one subscriber's connection (TA) located in at least one communication network (OKN), with the means (EM) for the transmission of connection data (port-id) to the communication network (OKN) representing the at least one subscriber's connection, with the authentication means (RADS) located in the

communication network (OKN) in order to verify the authenticity of the data to be transmitted via the at least one subscriber's connection (TA) by using the transmitted connection data (port-id).

- 5 14. Communication system according to claim 13, characterized in that. the at least one subscriber's connection and the means (EM) for the transmission of the connection data (port-id) is allocated to a switching device (VE) located in the 10 communication network.
- 15. Communication system according to claim 13 or 14, characterized in that, the communication network is at least partly designed in accordance with the Ethernet transmission method, in which the 15 data to be transmitted is transmitted via the at least one subscriber's connection (TA) in accordance with the PPPoE transmission method in accordance with RFC 2516.
 - 16. Communication system according to claim 15, characterized in that,
- 20 the means (EM) for the transmission of connection data (portid) is designed in such a way that via these means the connection data (port-id) is inserted as the "Relay Session ID TAG" into the PPPoE Active Discovery (PADI) messages transmitted via the at least one subscriber's connection (TA) 25 to the communication network (OKN, ASR).